

AMENDMENTS TO CLAIMS

1. An air temperature exchanger mounted inside and made an integral part of a pipeline connecting both cold and hot coils inside an air ~~condition~~ conditioning system, essentially comprised of a baseboard sandwiched by a cold conductor and a hot conductor having ~~its both sides, said~~ sides contacting and bounded respectively to a contact surface from two units of contact boards connected in between a multiple of crystals; wherein, said contact surfaces creating a temperature difference, ΔT , with one contact surface dissipating heat and the other cooling down the air temperature; and ~~said conductor~~ said cold conductor and said hot conductor containing liquid having a water inlet at the top and a water outlet at the bottom with both connecting to a cold coil and a hot coil to form respectively a closed loop for the liquid circulation driven by a corresponding pump.
2. An air temperature exchanger as claimed in Claim 1, wherein, said multiple crystals provided between two contact surfaces ~~include~~ comprise elements of Sb, and Bi ~~and other elements~~ connected in sequence with a positive electrode from a crystal to a negative electrode from an abutted crystal.
3. An air temperature exchanger as claimed in Claim 1, ~~within~~ wherein, three sides other than the side bound to the baseboard of the hot conductor are integrated with multiple fins for heat dissipation purpose and arranged in parallel at equal spacing adapted to a fan to ~~improved~~ improve heat dissipation efficiency of the hot conductor.
4. The air temperature exchanger of claim 1 wherein said hot conductor has an outside and said outside has fins for radiation of heat.
5. The air temperature exchanger of claim 4 further comprising an eccentric fan adapted to draw cool air away from said cold coil and into a defined space.
6. The air temperature exchanger of claim 5 further comprising a blade fan adapted to draw hot air away from said hot coil and to dissipate said hot air.
7. The air temperature exchanger of claim 4 further comprising a blade fan adapted to draw hot air away from said hot coil and to dissipate said hot air.
8. The air temperature exchanger of claim 1 further comprising an eccentric fan adapted to draw cool air away from said cold coil and into a defined space.

9. The air temperature exchanger of claim 8 further comprising a blade fan adapted to draw hot air away from said hot coil and to dissipate said hot air.
10. The air temperature exchanger of claim 1 further comprising a blade fan adapted to draw hot air away from said hot coil and to dissipate said hot air.
11. The air temperature exchanger of claim 1 wherein said pipeline has an exterior and said exterior has fins adapted to facilitate dissipation of heat.
12. The air temperature exchanger of claim 1 wherein said closed loop connects a plurality of said cold conductors and a plurality of said hot conductors.

TRAVERSAL OF CLAIM REJECTIONS

Applicant respectfully traverses the rejection of claim 1 under 35 U.S.C. §102 and requests the Examiner to reconsider and withdraw the same. Applicant respectfully traverses the rejection of claims 2 and 3 under 35 U.S.C. §103 and requests the Examiner to reconsider and withdraw the same.

COMPLETE LISTING OF CLAIMS

1. (Currently Amended) An air temperature exchanger mounted inside and made an integral part of a pipeline connecting both cold and hot coils inside an air conditioning system, essentially comprised of a baseboard sandwiched by a cold conductor and a hot conductor having sides, said sides contacting and bounded respectively to a contact surface from two units of contact boards connected in between a multiple of crystals; wherein, said contact surfaces creating a temperature difference, ΔT , with one contact surface dissipating heat and the other cooling down the air temperature; and said cold conductor and said hot conductor containing liquid having a water inlet at the top and a water outlet at the bottom with both connecting to a cold coil and a hot coil to form respectively a closed loop for the liquid circulation driven by a corresponding pump.
2. (Currently Amended) An air temperature exchanger as claimed in Claim 1, wherein, said multiple crystals provided between two contact surfaces comprise elements of Sb, and Bi connected in sequence with a positive electrode from a crystal to a negative electrode from an abutted crystal.
3. (Currently Amended) An air temperature exchanger as claimed in Claim 1, wherein, three sides other than the side bound to the baseboard of the hot conductor are integrated with multiple fins for heat dissipation purpose and arranged in parallel at equal spacing adapted to a fan to improve heat dissipation efficiency of the hot conductor.
4. (New) The air temperature exchanger of claim 1 wherein said hot conductor has an outside and said outside has fins for radiation of heat.
5. (New) The air temperature exchanger of claim 4 further comprising an eccentric fan adapted to draw cool air away from said cold coil and into a defined space.
6. (New) The air temperature exchanger of claim 5 further comprising a blade fan adapted to draw hot air away from said hot coil and to dissipate said hot air.
7. (New) The air temperature exchanger of claim 4 further comprising a blade fan adapted to draw hot air away from said hot coil and to dissipate said hot air.
8. (New) The air temperature exchanger of claim 1 further comprising an eccentric fan adapted to draw cool air away from said cold coil and into a defined space.

9. (New) The air temperature exchanger of claim 8 further comprising a blade fan adapted to draw hot air away from said hot coil and to dissipate said hot air.

10. (New) The air temperature exchanger of claim 1 further comprising a blade fan adapted to draw hot air away from said hot coil and to dissipate said hot air.

11. (New) The air temperature exchanger of claim 1 wherein said pipeline has an exterior and said exterior has fins adapted to facilitate dissipation of heat.

12. (New) The air temperature exchanger of claim 1 wherein said closed loop connects a plurality of said cold conductors and a plurality of said hot conductors.